

Outlet Surge Protection

What is outlet surge protection?

Simply plugged into wall outlets, this type of surge protection stops voltage spikes from damaging your valuable electronic equipment.

Outlet surge protection diverts excessive electrical energy away from sensitive electronics or appliances. The energy goes to an electrical “ground” where it is dissipated without doing any harm.

Selecting the right surge protector

To protect your large appliances such as your refrigerator, you need panel-mounted surge protection. But not all electrical faults or surges come from outside the home, or through your electric panel. Surges can also enter through phone, modem and cable-TV lines.

To enhance your protection and cover sensitive smaller electronics such as your entertainment or computer systems, add outlet surge protectors for each piece of equipment you want to protect.

Look for these four key features, at minimum:

UL 1449 listed. This means it conforms to Underwriter Laboratory’s standard 1449 for surge protection devices, and is required for safety. UL listing as a “power tap” is not sufficient.

Peak surge current. Also referred to as maximum transient current or maximum surge.

- If you have surge protection at your meter or circuit panel, 36,000 amperes per outlet protector is enough.
- Without surge protection at your meter or circuit panel, look for 54,000 amperes or higher.

UL 1449 suppressed voltage rating. Also referred to as “clamping” voltage. 330 volts gives the best protection; higher voltage ratings give less protection.

Energy rating (joules)

- Look for 700 joules or more; the higher the joules, the better.
- Since testing methods for energy rating are not standardized, don’t base your choice on a joules energy rating alone.



Other important features

Depending on your electronics and appliances, you might want these optional features:

Telephone and cable TV protection

- Look for a surge protector with cable connectors and/or phone jacks.

Extra connectors and outlets

- Several outlets for each piece of equipment
- Room for AC adapters (transformers)

Status or warning lights

- To indicate that the device is working (not just on).

Electrical noise protection

- For electromagnetic interference (EMI)
- For radio-frequency interference (RFI)

Warranty and insurance

- Warranty on surge protector of at least five years
- Warranty on connected equipment of \$10,000 to \$25,000 or more

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Q. What if the packaging doesn't list all these specifications?

Consider buying a different surge protector that lists all of the minimum specifications. Make sure the device you choose comes with the UL 1449 listing.

Q. What does a good outlet surge protector usually cost?

For home use, quality surge protector prices can be found for as little as \$10 to \$15 for a small single-outlet model. Larger models with six to eight outlets can be about \$35-\$75, based on features.

Q. What can't a surge protector do?

It cannot protect you from power outages (blackouts) or power sags (brownouts). It provides only limited protection from surges and nearby lightning strikes.

Q. Will a surge protector work in my older home?

A surge protector will only work if plugged into a properly grounded three-prong outlet. If your home features two-prong or improperly grounded three-prong outlets, talk to an electrical contractor about upgrading.

Q. What about my old surge protector?

The UL Standard 1449 became more strict in August 1998, so older versions may be less safe. The UL Standard 1449 must be stamped or embossed on the device for adequate protection.

If an old protector discolors, overheats or shows signs of melting, replace it immediately. If your old surge protector indicator lights are not working, it should be replaced.

Q. Can I protect my whole house or office from power quality problems?

A panel-mounted surge protector provides surge protection and protects your electrical system from power surges originating outside the building. For true overall protection, all electronics connected to telephones, cable TV or a digital satellite system should also be plugged into outlet surge protectors with phone, cable TV or digital satellite system protection.

Still have questions?

Contact PGE customer service for help:

- 503-228-6322 (Portland)
- 800-542-8818 (elsewhere)